



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/040,721 01/07/2002 Vincent P. Stanton JR. 50038/020003 3705

21559 7590 08/07/2002

CLARK & ELBING LLP
101 FEDERAL STREET
BOSTON, MA 02110

EXAMINER

CHAKRABARTI, ARUN K

ART UNIT	PAPER NUMBER
----------	--------------

1634

DATE MAILED: 08/07/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/040,721	STANTON, VINCENT P.	
	Examiner Arun Chakrabarti	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 22 and 46-51 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 22 and 46-51 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) Interview Summary (PTO-413) Paper No(s). _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: *Detailed Action*.

Art Unit: 1634

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claim 22 is rejected under 35 U.S.C. 102 (a) as being anticipated by Halverson et al. (U.S. Patent 5,707,809) (January 13, 1998).

Halverson et al teach a method for analyzing a test nucleic acid sample to determine whether it contains a sequence variance (Abstract), the method comprising the steps of:
a) obtaining a nucleic acid probe that is complementary to a sex chromosome or segment thereof (Abstract, Example 1, Table 1 and Claim 7);
b) forming a duplex between the test nucleic acid sample and the probe (Example 1, Table 1 and Claim 7); and

c) analyzing whether the duplex contains a nucleotide mismatch, thereby determining whether the test nucleic acid sample contains a sequence variance (Example 1, Table 1 and Claim 7).

3. (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Art Unit: 1634

4. Claims 22, 46, 47, 49 and 50 are rejected under 35 U.S.C. 102 (e) as being anticipated by Witney et al. (U.S. Patent 5,792,610) (August 11, 1998).

Witney et al. teach a method for analyzing a test nucleic acid sample to determine whether it contains a sequence variance (Abstract), the method comprising the steps of:

a) obtaining a nucleic acid probe that is complementary to a sex chromosome or segment thereof (Abstract, Example 1, and Column 5, lines 1-29 and Claim 1);

b) forming a duplex between the test nucleic acid sample and the probe (Column 6, lines 7-13 and Claim 1 and Example 1); and

c) analyzing inherently whether the duplex contains a nucleotide mismatch, thereby determining whether the test nucleic acid sample contains a sequence variance (Abstract and Example 1, and Column 26, line 1 to column 28, line 62).

Witney et al. teach a method, wherein the probe is derived from a cell having only one parental copy of an X chromosome and/or only one parental copy of a Y chromosome (Column 28, lines 33-46).

Witney et al. teach a method wherein the test nucleic acid sample and the sex chromosome is from a human (Abstract, Example 1, and Column 5, lines 1-29 and Claim 1).

5. Claim 51 is rejected under 35 U.S.C. 102 (e) as being anticipated by Whiteley et al. (U.S. Patent 5,962,223) (October 5, 1999).

Whiteley et al teach a method for analyzing a test nucleic acid sample to determine whether it contains a sequence variance (Abstract), the method comprising the steps of:

Art Unit: 1634

- a) obtaining a nucleic acid probe derived from a somatic cell hybrid, the probe being complementary to a chromosome or segment thereof, wherein only one allele of the chromosome or segment thereof is present in the somatic cell hybrid, and wherein the somatic cell hybrid is formed from the fusion of a cell or chromosome to a recipient cell (Abstract, Example 2 and Column 2, lines 6-48);
- b) forming a duplex between the nucleic acid sample and the probe (Abstract, Example 2 and Column 2, lines 6-48); and
- c) analyzing whether the duplex contains a nucleotide mismatch, thereby determining whether the test nucleic acid sample contains a sequence variance (Abstract, Example 2 and Column 2, lines 6-48).

Allowable Subject Matter

6. Claim 48 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun Chakrabarti , Ph. D., whose telephone number is (703) 306-5818. The examiner can normally be reached on 7:00 AM-4:30 PM from Monday

Art Unit: 1634

to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones, can be reached on (703) 308-1152. The fax phone number for this Group is (703) 305-7401.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group analyst Chantae Dessau whose telephone number is (703) 605-1237.

Arun Chakrabarti,

Patent Examiner

March 29, 2002

Arun K. Chakrabarti

**ARUN K. CHAKRABARTI
PATENT EXAMINER**

W. Gary Jones
**W. Gary Jones
Supervisory Patent Examiner
Technology Center 1600**